

# GMV SWEDEN AB

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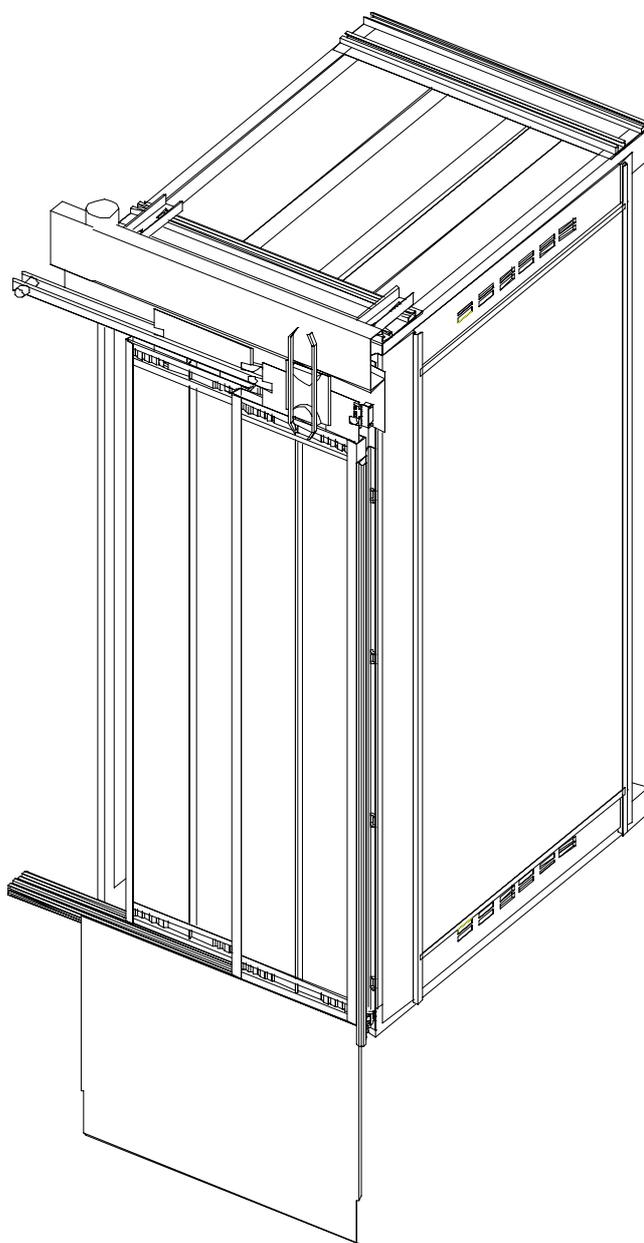
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## *Assembly Instructions*

### *TMC Car*



## PART ONE - GENERAL

### DOCUMENTATION

The following documentation is required for car installation:

- N°1 Copy of the Project Drawing (car position inside the well)
- N°1 Copy of the Wiring Diagram (connection for push-button panels and lighting)
- N°1 Copy of these Assembly Instructions (car installation)



Please handle this documentation with maximum care: do not damage nor lose it.

### SAFETY DURING ASSEMBLING



#### PREVENTION

In order to prevent accidents and ensure a safe and accurate assembly of the car, always comply with the general safety rules for work stations, and remember



Always wear the following Safety Devices:



▣Helmet



▣Gloves



▣Overalls closed at their ends



▣Safety shoes



▣Safety belt



Use suitable equipment for the lifting of heavy loads



Handle fragile or perishable goods with care



#### PROHIBITIONS



Do not wear objects and/or clothes that can easily get entangled (ties, necklaces, watches, bracelets, etc.)



Do not wear long hair loose



Do not keep sharp or cutting objects in your pockets



#### WARNING



Do not remove or damage warning/danger signs



Do not put your hands on sharp edges when handling the car (e.g. upper or lower edge of modular panels)

### TERMS AND DEFINITIONS

- TO ALIGN** : the parts are put in such a way that holes, tabs, fixed joints or anything specified are in axis and/or matching
- TO CHECK** : this is followed by a check operation before carrying on the assembly
- TO SECURE** : the part is placed where required, and all the bolts are tightened in a workmanlike manner
- TO INSERT** : the part is placed in the required housing and fixed in a provisional or final way
- TO LAY** : the part is placed where required without using any fixed joints or securing bolts
- TO PREARRANGE** : the part is subject to preparatory modifications prior to the following assembling step
- TO PRESECURE** : the part is placed where required by inserting the specified bolts, that must be screwed provisionally - not tight!

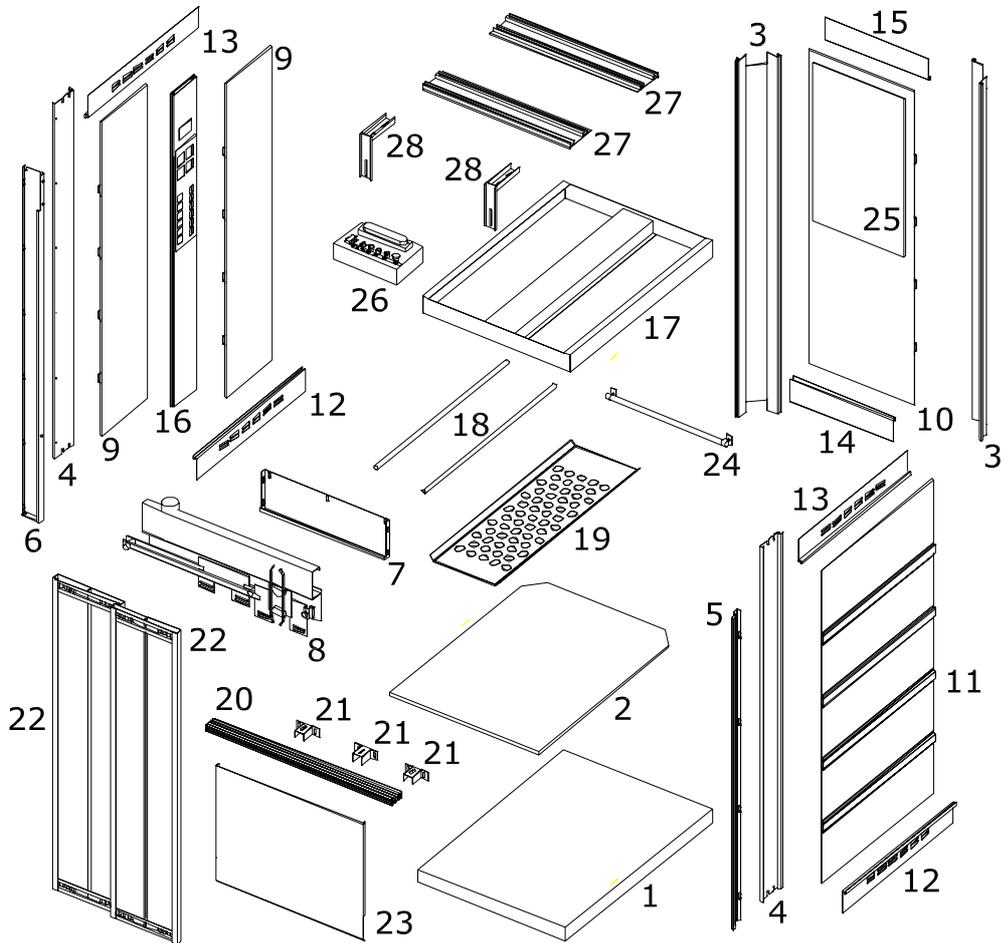


## PART TWO - LIST OF COMPONENTS

### CAR COMPONENTS

Part	Description	Q.ty	Part	Description	Q.ty
Bottom	1.Car bottom	1	Push-Button Panel	16.Column panel	1
Floor	2.Floor covering	1	Roof	17.Roof	1
Angles	3.Rear angle	2	Lighting	18.Neon lamps	2
	4.Entrance upright	2		19.Roof lamp with holes	1
	5.Strike post	1	Doors	20.Car door sill	1
	6.Compensation panel	1		21.Sill support	3
	Architrave	7.Header		1	22.Car door wing
Operator	8.Car door operator	1	23.Apron	1	
Wall Panel	9.Column side panel	2	Handrail	24.Rear handrail	1
	10.Rear panel	1	Mirror	25.Mirror	1
	11.Complete wall panel	1	Roof accessories	26.Roof maintenance panel*	1
Baseboards (Skirting board)	12.Ventilated lower baseboard	2		*supplied with the electrical part	
	13.Ventilated upper baseboard	2		27.Operator bearing plate	2
	14.Closed lower baseboard	1		28.Operator fixing brackets	2
	15.Closed upper baseboard	1			

**NOTE:** Quantities refer to a single-access car with mirror on rear wall and coconut mat flooring



Skirting-board (stainless steel)

## PART FOUR - ASSEMBLY

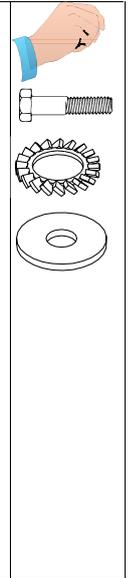
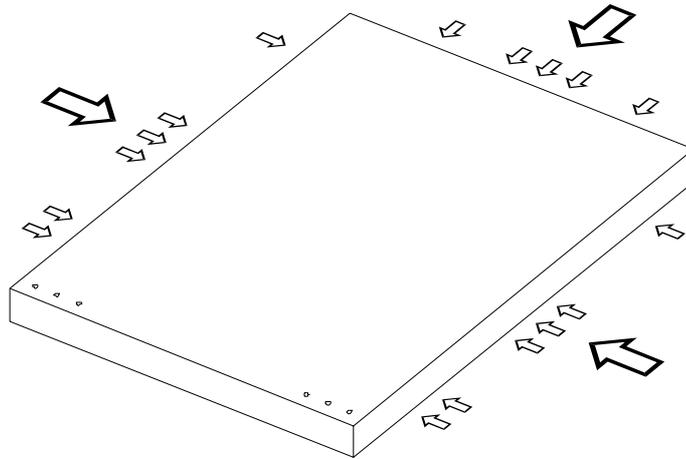
In order to assembly correctly, use these instructions and carefully follow the sequences as shown.



**WARNING** - Do not remove the protection film from the exposed side of angles, uprights, roof, panels and accessories until specified, since the film preserves their integrity.

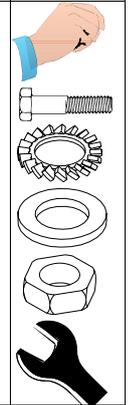
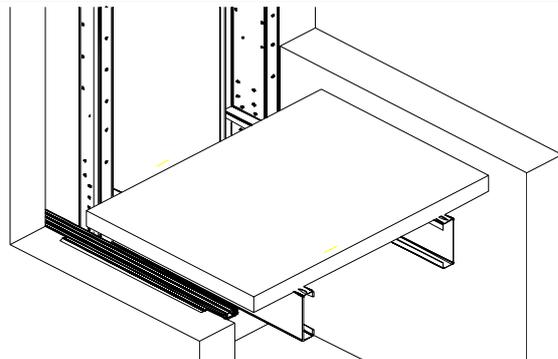
**1. CAR BOTTOM (PREARRANGEMENT)**  
**Insert** in the proper fixing supports, on sides shown by the arrows, the locking hex.-head screws M8 with multiple washer (Flat with large support) Ø8, toothed washers Ø8

**WARNING** – According to the floor covering check that the following steps are performed  
 - If the floor is covered with PVC already glued:  
**Verify** that the PVC covering is correctly glued to the car floor  
 - If the floor covering should be placed (for example coconut mat, 'Pirelli' rubber, etc.):  
**Lay** the cover material over the car floor.



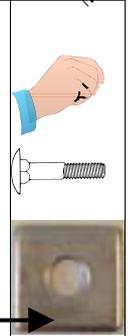
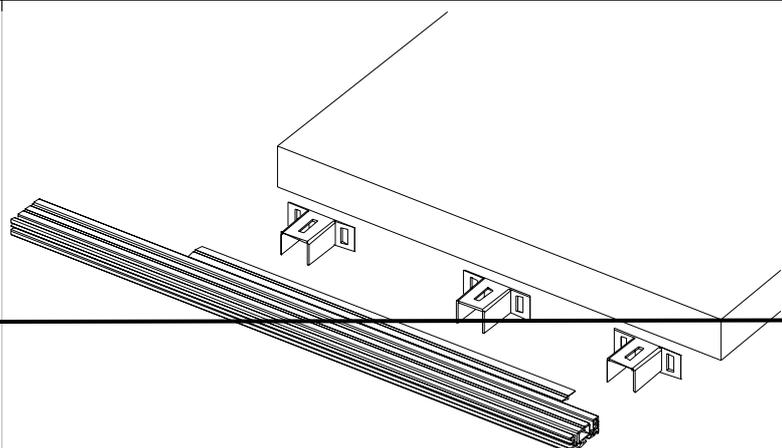
**2. CAR BOTTOM (LAYING)**  
**Lay** the car bottom on the car sling supports, and insert 4 hex.-head screws M12 in the corresponding slots.

**Presecure** each sill support using 2 hex.-head screws M8 with toothed washer Ø8, flat washer Ø8 and nut Ø8



**3. SILL**  
**Insert** 3 square screws M10 in the sill and in the horizontal slot of the sill supports.  
**Adjust** the sill height according to the type of floor to be installed.

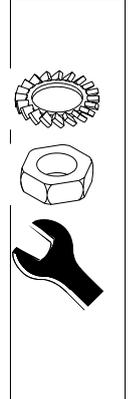
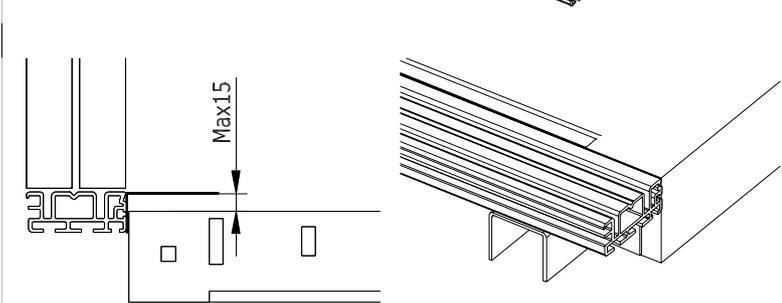
**Secure** the sill supports and tighten the screws.  
**Secure** the sills using 3 hex.-head nuts M10 with **square washer** and toothed washer



**WARNING**  
 The height of the sill over bottom level shall not exceed 15 mm max. (coconut mat).

**WARNING**  
 The sill shall be flush.

**WARNING**  
 Protect the covering floor (for example using a cardboard) to preserve its integrity during the assembly



## 4. CAR BOTTOM (SECURING)

**Align** the bottom to the middle line of the landing doors, considering that the middle line of the car door is at  $SP + \frac{1}{2}AP$  on the strike post side.

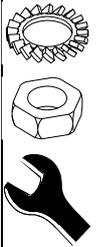
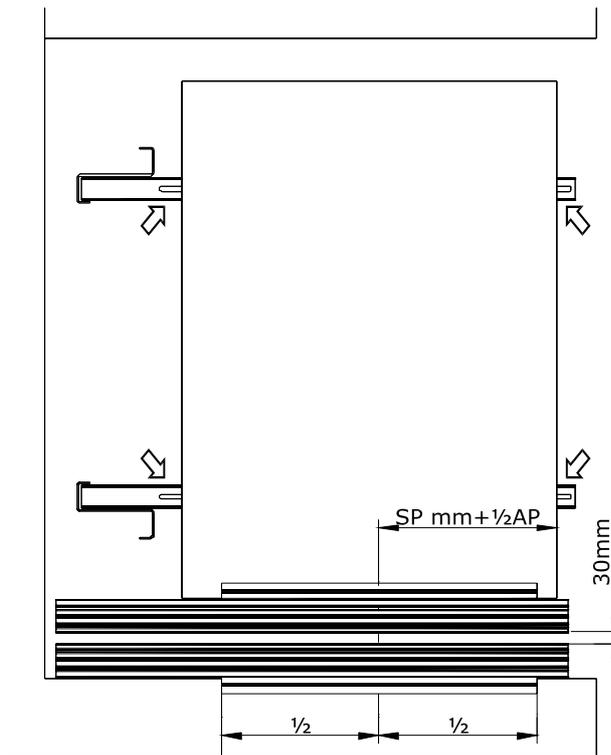
(see Figure ⇨)

**Align** the entry side of the bottom to the landing sill, and keep a theoretical distance of 30 mm (min. 28 - max. 35).

**Check** that such theoretical distance is included between the minimum and maximum value allowed, at all landings.

**Level** the car bottom, and use shims between car bottom and car sling support, if required.

**Secure** car bottom to car sling and insert 4 toothed washers  $\varnothing 12$  and 4 hex.-head nuts M12 on the hex.-head screws M12 previously inserted (§2); then tighten the screws.



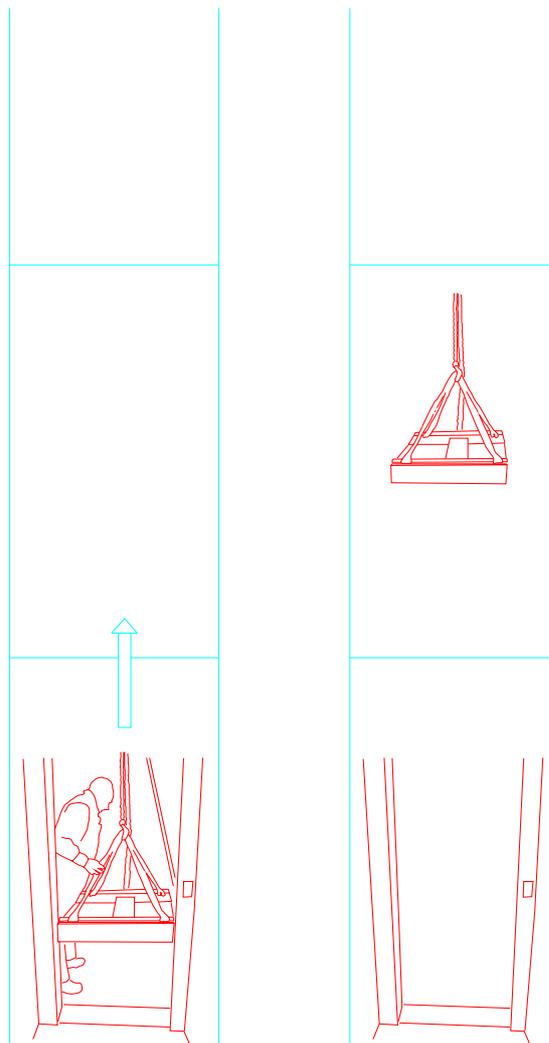
## 5. CAR ROOF

**lifting/hanging in shaft before starting assembly** of wall panels it is recommended to sling car roof in shaft, which will simplify the later assembly of wall panels to roof.

### WARNING!

“Hanging load”

**Fasten and secure car roof in shaft**



## 6. REAR WALL

**Lay** the closed lower baseboard (1) on the side opposite to the door, inserting it on the hex.-head locking screws M8 (§1).

**Secure** the lower baseboard (1), in the middle of the rear side, by using the 3 hex.-head locking screws M8 (§1).

**Lay** the rear angle (2) on the floor corner, on the side opposite to the car frame uprights and to the door, inserting it on the hex.-head locking screws M8 (§1).

**Presecure** the rear angle (2) by using the 2 hex.-head locking screws M8 (§1).

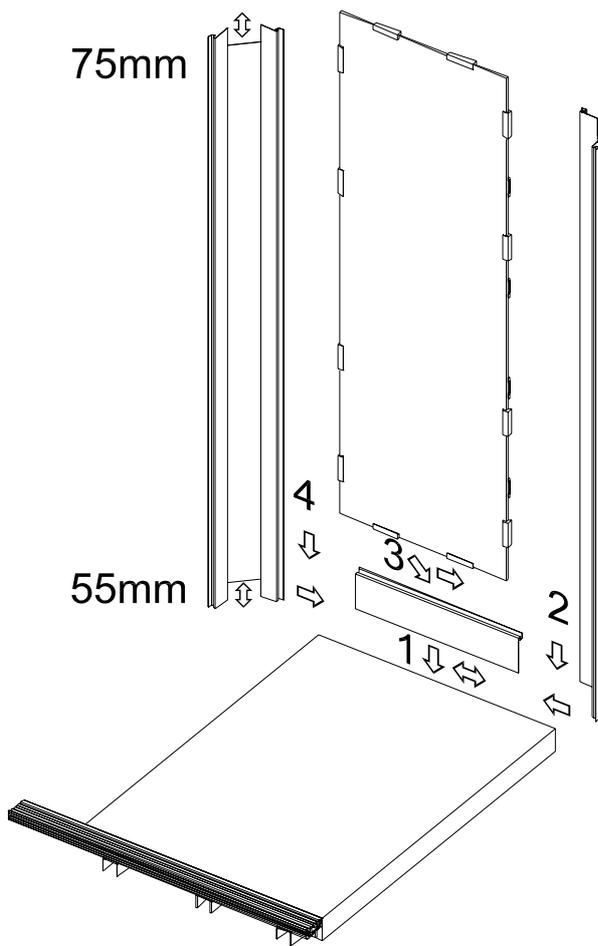
**Verify** that all soundproofing strips are correctly placed on the wall panels or in the ply of the rear angle.

**Lay** the rear panel (3) on the lower baseboard, inserting it in the ply of the angle edge (1)

**Lay** the rear angle (4) on the floor corner, on the side near to the car frame uprights, inserting it on the hex.-head locking screws M8 (§1) and the rear panel (3) in the ply.

**Push** towards the opposite rear angle (1) sticking correctly all the parts (1-2-3-4)

**Presecure** the rear angle (4) by using the 2 hex.-head locking screws M8 (§1).



### WARNING

*Verify that the rear angles are correctly placed by checking the dimensions of the trimming of corners*

### WARNING

*Verify that all soundproofing strips are correctly placed on the wall panels or in the ply of the entrance uprights*



## 7. WALL OPPOSITE TO THE PUSH-BOTTOM COLUMN (ONE PANEL)

**Lay** the ventilated lower baseboard (1) on the side near the car frame uprights, inserting it on hex.-head locking screws M8 (§1), sticking to the angle (1)

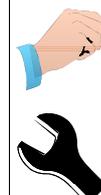
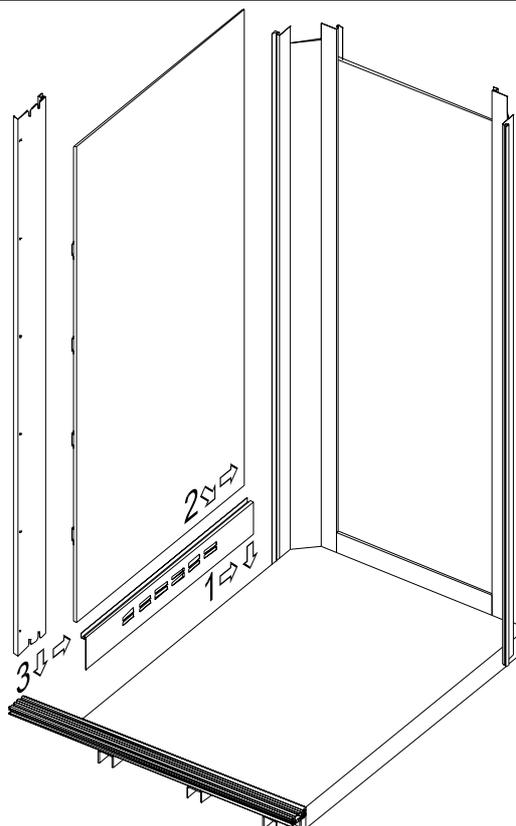
**Presecure** the lower baseboard (1) by using the 3 hex.-head locking screws M8 (§1).

**Lay** the complete wall panel (2) on the lower baseboard, inserting it in the ply of the angle edge (1)

**Lay** the entrance upright (3) on the side near to the car frame, inserting, it on the hex.-head locking screws M8 (§1) and the complete wall panel (2) in the ply.

**Push** towards the opposite rear angle sticking correctly all the parts (1-2-3)

**Presecure** the entrance upright (3) by using the 2 hex.-head locking screws M8 (§1).



## 8. WALL OPPOSITE TO THE PUSH-BUTTON COLUMN (THREE PANELS BUILT)

**Lay** the ventilated lower baseboard (1) on the side near the car frame uprights, inserting it on the hex.-head locking screws M8 (§1), sticking to the angle.

**Presecure** the lower baseboard (1) by using the 3 hex.-head locking screws M8 (§1).

**Lay** the column side panel (2) on the lower baseboard, inserting it in the ply of the angle edge (1)

**Lay** the "false column" panel (3) on the lower baseboard, inserting column side panel (2) in the ply of the edge

**Lay** the column side panel (4) on the lower baseboard, inserting it in the ply of the edge of column panel (3)

**Lay** the entrance upright (5) on the side near to the car frame, inserting, it on the hex.-head locking screws M8 (§1) and the column side panel (4) in the ply.

**Push** towards the opposite rear angle sticking correctly all the parts (1-2-3-4-5)

**Presecure** the entrance upright (5) by using the 2 hex.-head locking screws M8 (§1).

## 9. PUSH-BUTTON WALL

**Lay** ventilated lower baseboard (1), on the side opposite to the car frame uprights, inserting it on the hex.-head locking screws M8 (§1), sticking to the rear angle.

**Presecure** the lower baseboard (1) by using the 3 hex.-head locking screws M8 (§1).

**Lay** the column side panel (2) on the lower baseboard, inserting it in the ply of the angle edge (1)

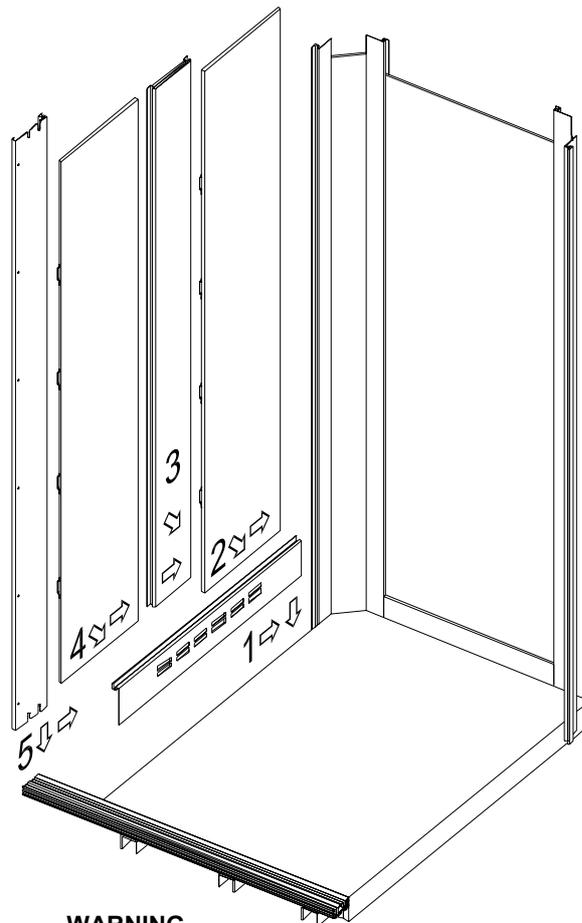
**Lay** the push-button column (3) on the lower baseboard, inserting panel (2) in the ply of the edge

**Lay** the column side panel (4) on the lower baseboard, inserting it in the ply of the column edge (3)

**Lay** the entrance upright (5) on the side near to the car frame, inserting, it on the hex.-head locking screws M8 (§1) and the column side panel (4) in the ply.

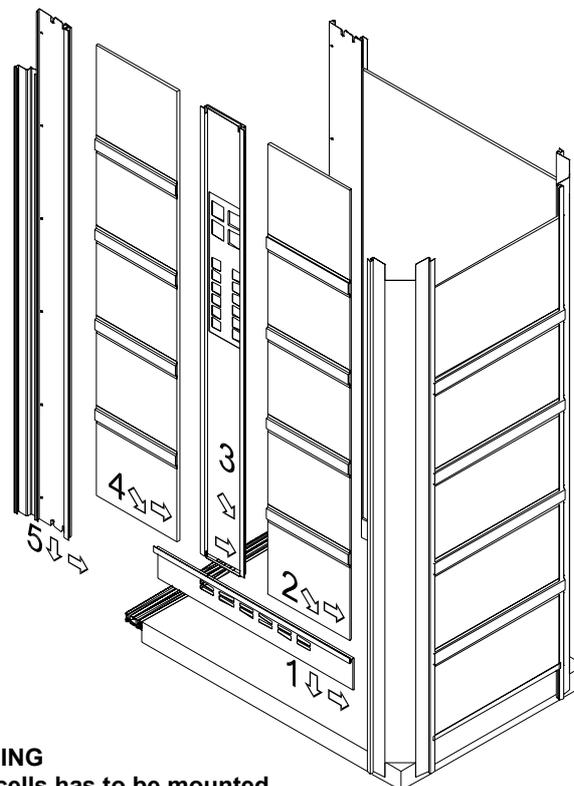
**Push** towards the opposite rear angle sticking correctly all the parts (1-2-3-4-5)

**Presecure** the entrance upright (5) by using the 2 hex.-head locking screws M8 (§1).



### WARNING

**Verify** that all soundproofing strips are correctly placed on the wall panels or in the ply of the entrance uprights.



### WARNING

**Photocells** has to be mounted before assembly entrance on car frame.

**Verify** that all soundproofing strips are correctly placed on the wall panels or in the ply of the entrance uprights or column.



## 10. FRONT WALL (SHELVES AND HEADER)

**Lay** the compensation panel and stick it to the entrance upright on the opening door side

**Presecure** the compensation panel, to the entrance upright by using hex.-head screws M4, with toothed washer  $\varnothing 4$  flat washer  $\varnothing 4$  and nuts  $\varnothing 4$ , to the floor by using hex.-head screws M8, with toothed washer  $\varnothing 8$ , flat washer  $\varnothing 8$  and nuts  $\varnothing 8$ .

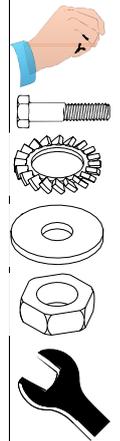
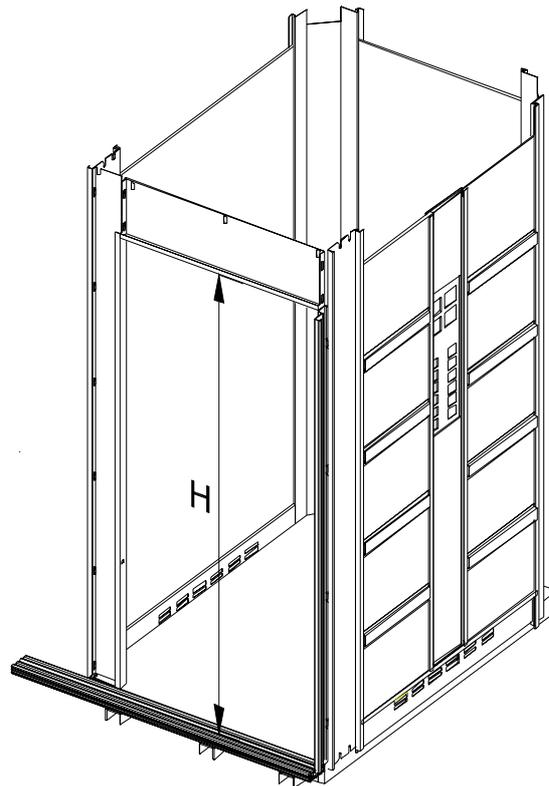
**Lay** the header between the entrance upright and the compensatory panel.

**Secure** the header to the entrance upright and the compensation panel, using 4 hex.-head screw M 8, with toothed washer  $\varnothing 8$  and flat washer  $\varnothing 8$  inserted in the proper slot.

**Assembly** the skirting-board.

### WARNING

Verify that the distance *H*, between the header and the sill is more or equal to 2000 mm, considering the floor covering thickness.



## 11. UPPER ZONE (BASEBOARDS AND ROOF)

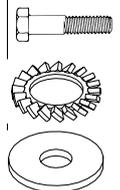
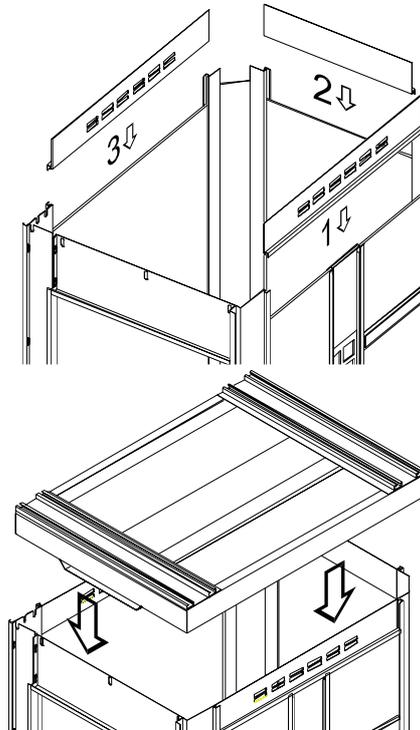
**Lay** ventilated upper baseboard (1) on the side opposite to the car frame, on panels and column, sticking to the rear angle and the entrance upright.

**Lay** the closed upper baseboard (2) on the rear side, on panel (or mirror), stick it to the rear angles.

**Lay** ventilated upper baseboard (3) on the side near to the car frame, on column side panels and "false column" panel or on the complete wall panel, sticking to the rear angle and the entrance upright.

**Insert** with proper fixing supports, on roof sides, the locking hex.-head screws M8 with multiple washer (Flat with large support)  $\varnothing 8$ , toothed washers  $\varnothing 8$

**Lay** the roof, flat, on the rear angles, uprights and upper baseboards.



### WARNING

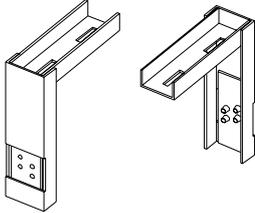
**Plumb** the car and secure it to the car frame

**Secure** the roof and all presecured parts, by using the hex.-head locking screws M8.

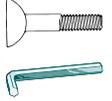
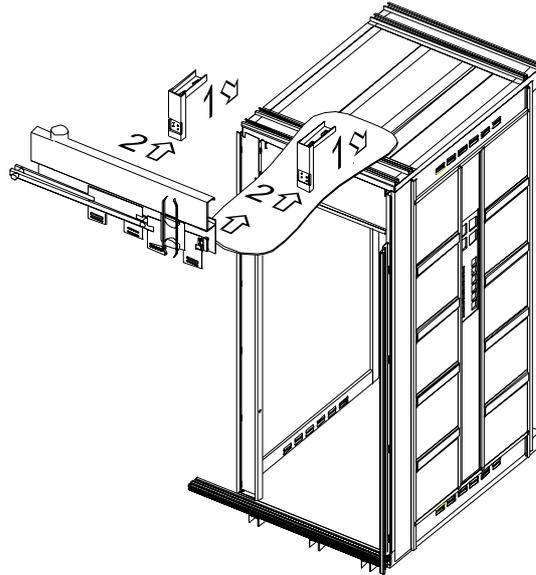
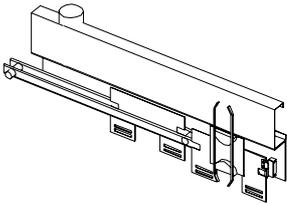


## 12. DOOR OPERATOR

**Secure** the door operator fixing brackets (1) to the guides on the roof by using 4 flathead screws M10



**Secure** the door (2) to the fixing brackets by using 2 flathead screws M10

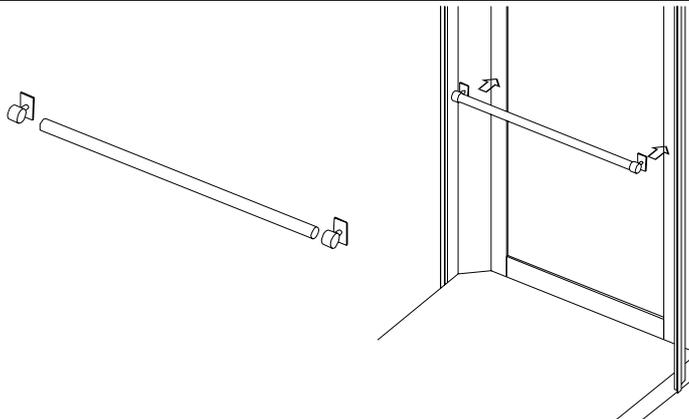


**WARNING** Secure the screws

## 13. HANDRAIL

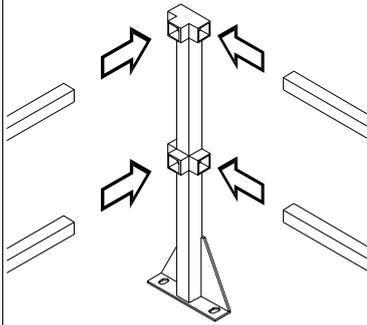
**Prearrange** the rear angles, by drilling at a height of 960 mm from car floor.

**Secure** the handrail using 4 flathead screw M4.

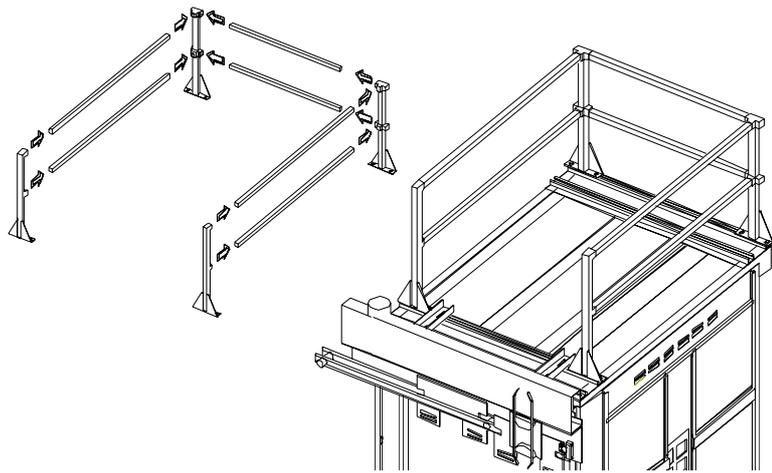


## 14. SAFETY RAIL

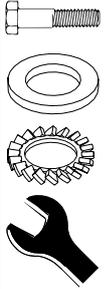
Lay the safety rail on proper fixing guides on car roof, joining uprights and square pipes



Secure the safety rail to the roof by using 8 hex.-head screws M10 with toothed washer  $\varnothing 10$ , flat washer  $\varnothing 10$  and proper threaded plates.



Secure square pipes to the uprights inserting Hex.-head screws M4 into the proper threaded holes



## 15. ENDING ACCESSORIES

### CAR DOOR PANELS

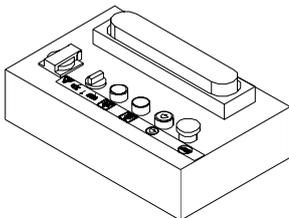
Insert the door panels shoes into the sill car line

Secure the shoe brackets to the door panels by using 4 allen-head screws socket M10 with split washer  $\varnothing 10$ , eccentric washer c/w three holes.

### WARNING

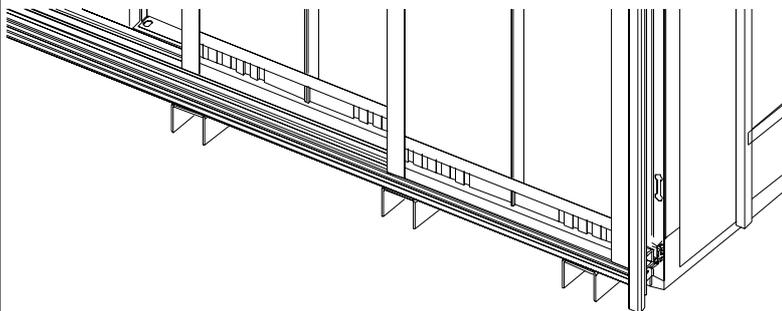
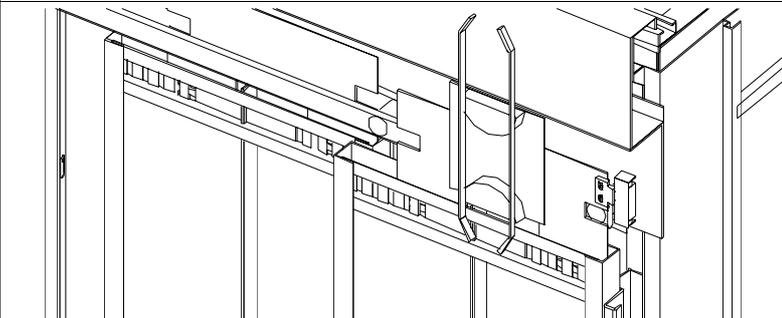
*the distance between the sill and the door panels should be 5mm*

Secure the door panels to the operator trolleys by using 4 ch.-headed screw with hex. socket M10, with split washer  $\varnothing 10$ , eccentric washer c/w three holes.



### MAINTENANCE PUSH-BUTTON PANEL

Secure the maintenance push-button panel to car roof by using the double side adhesive tape provided under the box.



### WARNING

The MAINTENANCE PUSH-BUTTON PANEL is supplied with the electrical part

### PROTECTION FILM

Remove the protection film from all parts at sight.



Gmv Spa, reserves the right, within technical or manufacturing progress, to modify parts or this manual without notice

Drawings, descriptions and data included in this manual are only for reference

Gmv Spa will not assume any responsibility if assembly procedures are not followed accurately or non authorized parts are used

To guarantee the products security, do not use spare parts not approved by Gmv Spa